WHAT IS CLAIMED IS:

1. A method of controlling a reactive flow into a process chamber comprising:

generating the reactive flow from a remote plasma generator;

channeling the reactive flow to a chamber inlet leading to the process chamber;

disrupting the reactive flow in the chamber inlet; and

flowing the disrupted reactive flow from the chamber inlet into the process chamber.

2. The method of Claim 1, wherein the disrupting comprises injecting a gas into the chamber inlet at an non-parallel angle to a direction in which the reactive flow enters the chamber inlet, the gas being injected to intersect the reactive flow.

3. The method of Claim 1, wherein the disrupting comprises injecting a gas into the chamber inlet at an angle non-parallel to a direction in which the reactive flow enters the chamber inlet, the gas being injected to not intersect the reactive flow.

4. The method of Claim 1, wherein the disrupting comprises flowing the reactive flow through a plenum insert in the chamber inlet.

5. The method of Claim 4, wherein the disrupting includes providing a plenum insert comprising a plate having at least one opening selectively located therein in order to disrupt the reactive flow issuing from the chamber inlet.

6. The method of Claim 5, wherein the disrupting includes providing the plenum insert having at least one flow blocking section selected to disrupt the reactive flow as the flow exits the chamber inlet and enters the process chamber.

7. The method of Claim 1, wherein the generating includes igniting a plasma in a fluorine source gas.

8. The method of Claim 1, wherein the generating includes igniting a plasma in a chlorine source gas.

9. The method of Claim 1, wherein the flowing includes flowing the reactive flow to clean exposed surfaces within the chamber.

10. The method of Claim 1, wherein the generating includes generating a reactive flow comprising an activated halide species.

11. The method of Claim 1, wherein the flowing includes processing a substrate supported in the chamber.

12. The method of Claim 11, wherein the processing comprises depositing a layer onto the substrate.

13. The method of Claim 1, wherein the disrupting comprises spreading the reactive flow substantially laterally across the process chamber.

14. The method of Claim 13, further comprising bending the reactive flow about 90 degrees relative to the inlet so that the reactive flow is substantially parallel to a substrate surface.

15. The method of Claim 14, wherein the bending comprises joining the reactive flow with a carrier gas flow upstream of the substrate surface, the carrier gas flow traveling substantially parallel to a floor and a ceiling of the chamber.

16. The method of Claim 1, wherein the disrupting comprises bending the reactive flow to be non-parallel to a floor and a ceiling of the chamber.

17. The method of Claim 1, wherein the flow rate of gas from the gas source into the inlet plenum is less than the flow rate of the reactive flow into the inlet plenum.

18. The method of Claim 1, wherein the flow rate of gas from the gas source into the inlet plenum is greater than the flow rate of the reactive flow into the inlet plenum.

19. A process chamber flow control system comprising:

a remote plasma generator configured to produce a reactive flow;

a process chamber;

a channeling duct connecting the remote plasma generator to the process chamber, the duct being configured to channel the reactive flow from the remote plasma generator to the process chamber;

an inlet plenum between the channeling duct and the process chamber;

a gas source; and

a gas injector configured to inject into the inlet plenum a gas from the gas source in a direction which disrupts the reactive flow.

20. The system of Claim 19, wherein the gas injected from the gas injector is an inert gas.

21. The system of Claim 19, wherein the inlet is located upstream of a substrate holder.

22. The system of Claim 19, wherein the inlet is located between a carrier gas injector and a substrate holder.

23. The system of Claim 19, wherein the injector is configured to inject gas in a direction angled relative to the reactive flow flowing through the inlet plenum.

24. The system of Claim 23, wherein the injector is configured to inject at an angle from 110° to 145° relative to the reactive flow.

25. The system of Claim 23, wherein the injector is configured to inject at an angle of 30° to 65° relative to the reactive flow.

26. The system of Claim 20, wherein the injector comprises at least two gas injectors, the injectors being configured to disrupt the reactive flow in the inlet plenum.

27. The system of Claim 26, wherein at least two of the gas injectors are configured to be angled so their respective direct gas flow paths intersect.

28. The system of Claim 27, wherein at least two of the gas injectors are configured to be angled so their respective direct gas flow paths intersect within the inlet plenum.

29. The system of Claim 26, wherein at least two of the gas injectors are configured to be angled so their respective direct gas flow paths do not intersect within the inlet plenum.

30. The system of Claim 26, wherein at least two of the gas injectors are configured to produce a symmetrical reactive flow geometry from the inlet plenum.

31. The system of Claim 26, wherein at least two of the gas injectors are configured to produce an asymmetrical reactive flow geometry from the inlet plenum.

32. The system of Claim 26, wherein the inlet plenum has a conical profile with flared side walls, at least two of the gas injectors being located on opposing side walls.

33. The system of Claim 32, wherein the channeling duct is narrow with respect to the inlet plenum which progressively widens as the inlet plenum extends further from the duct, the inlet plenum including a mouth opening into the process chamber, the mouth being at least a component of the widest portion of the inlet plenum.

34. A method of controlling a reactive flow into a substrate process chamber comprising:

generating a reactive flow from a remote plasma generator;

channeling the reactive flow to an inlet plenum leading to a substrate process chamber;

injecting a gas into the inlet plenum at an angle selected to disrupt the reactive flow moving through the inlet plenum; and

flowing the reactive flow from the inlet plenum into the substrate process chamber.

35. The method of Claim 34, wherein flowing comprises both spreading the reactive flow substantially laterally across the substrate process chamber in a direction substantially parallel to a substrate holder face and bending the reactive flow away from the inlet plenum so that the reactive flow is substantially parallel to the substrate holder face.

36. The method of Claim 35, wherein the reactive flow enters the inlet plenum substantially perpendicular to a non-excited chamber flow originating from a point upstream of where the reactive flow enters the chamber and flowing the reactive flow from the inlet plenum into the substrate process chamber comprises bending the reactive flow so that the reactive flow is substantially parallel to the non-excited chamber flow.

37. The method of Claim 35, wherein the injecting comprises injecting an inert gas.

38. The method of Claim 34, wherein the gas is injected at a flow rate which is less than a flow rate of the reactive flow channeled from the remote plasma generator to the inlet plenum.

39. The method of Claim 38, wherein the gas is injected at a flow rate ranging from 20% to 80% relative to a flow rate of the reactive flow channeled from the remote plasma generator to the inlet plenum.

40. The method of Claim 34, wherein the gas is injected at a flow rate which is greater than a flow rate of the reactive flow channeled from the remote plasma generator to the inlet plenum.

41. The method of Claim 34, wherein a flow rate of the gas injected into the inlet plenum is 0.01-4 standard liters per minute (slm).

42. The method of Claim 41, wherein a flow rate of the reactive flow from the remote plasma generator is 0.01-20 standard liters per minute (slm).

43. A method of fabricating a substrate comprising:

channeling a plasma generator product to a process chamber;

injecting a gas in a direction which is non-parallel to a direction the plasma generator product would otherwise enter the process chamber without the non-parallel injection of the gas; and

flowing a combined flow of the plasma generator product and the gas into the process chamber.

44. The method of Claim 43, wherein flowing the plasma generator product and the gas into the process chamber comprises bending the reactive flow away from the inlet plenum so that the reactive flow is substantially parallel to a substrate surface.

45. The method of Claim 44, wherein flowing the plasma generator product and the gas into the process chamber further comprises spreading the reactive flow substantially laterally across the process chamber in a direction substantially parallel to the substrate surface.

46. The method of Claim 45, wherein flowing further comprises flowing the combination of the plasma generator product and the gas to join a non-excited chamber flow traveling parallel to the substrate surface.

47. A method of controlling a reactive flow into a substrate processing chamber comprising:

generating a plasma generator product;

channeling the plasma generator product to an inlet mouth which is joined to the substrate processing chamber;

injecting inert gas upstream from the inlet mouth non-parallel to the plasma generator product and at a flow rate of less than the flow rate of the plasma generator product; and

flowing a combined flow of the plasma generator product and the inert gas into the substrate processing chamber.

48. A process chamber flow control system comprising:

a process chamber;

an inlet leading into the process chamber;

a channeling duct configured to channel a plasma generator product to the inlet; and

an inlet insert located in the inlet, the inlet insert being configured to disrupt a reactive flow flowing through the inlet into the process chamber.

49. The system of Claim 48, further including a remote plasma generator configured to produce the plasma generator product.

50. The system of Claim 48, wherein the inlet insert is configured to disrupt the plasma generator product in order to control a flow geometry of the plasma generator product flowing into the process chamber.

51. The system of Claim 50, wherein the inlet insert comprises a plate having at least one shaped opening selectively located therein in order to disrupt the plasma generator product flowing through the at least one shaped opening and issuing from the inlet.

52. The system of Claim 50, wherein the inlet insert comprises a plate having at least one flow blocking portion selectively located therein in order to disrupt the plasma generator product flowing around the at least one flow blocking portions and issuing from the chamber inlet.

53. The system of Claim 48, wherein the inlet insert is configured to produce a uniform reactive flow geometry from the inlet.

54. The system of Claim 48, wherein the inlet insert is configured to produce a non-uniform reactive flow geometry from the inlet.

55. The system of Claim 48, wherein the inlet further comprises:

a throat defining the portion of the inlet where the reactive flow enters the inlet; and

a mouth defining the portion of the inlet through which the reactive flow exits the inlet into the process chamber, the mouth having a greater circumference than the throat.

56. The system of Claim 55, wherein the inlet insert is located between the mouth and the throat.

57. The system of Claim 55, wherein the inlet insert is located in the mouth.

58. The system of Claim 57, wherein the mouth is configured to hold the inlet insert in a selectively removable position.

59. The system of Claim 55, wherein the inlet has a conical profile with side walls flaring outwardly from the throat to the mouth, the flared side walls having asupport configured to hold the inlet insert in a selectively removable position.

60. A method of controlling a reactive flow into a process chamber comprising:

inserting a flow guide into a process chamber inlet;

channeling a reactive flow from a remote plasma generator into the process chamber inlet; and

disrupting the reactive flow as the reactive flow flows through the flow guide into the process chamber.

61. The method of Claim 60, wherein disrupting comprises shaping the flow geometry of the reactive flow into the process chamber.

62. The method of Claim 61, wherein the flow guide is inserted in the exit portion of the chamber inlet.

63. The method of Claim 61, wherein the flow guide is inserted between the entrance portion and the exit portion of the chamber inlet.

64. An apparatus for use in a process chamber flow control system having a process chamber, an inlet leading to the process chamber, and a channeling duct configured to channel a reactive flow to the inlet, comprising:

an inlet plate configured to disrupt a reactive flow flowing through the inlet into the process chamber.

65. The apparatus of Claim 64, wherein the inlet plate comprises a plate having a flow blocking section and an opening configured to disrupt the reactive flow flowing through

the opening and issuing from the inlet by altering the path of reactive flow as it flows through the inlet.